

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application:

Claims 1-16 (Canceled).

Claim 17 (Previously Presented): A method for the synthesis of a phosphorus compound, comprising:

reacting a phosphorus halide with an amine or an alcohol, thereby liberating an acid; wherein said phosphorus halide is a compound having at least one phosphorus-halogen (P-Hal) bond;

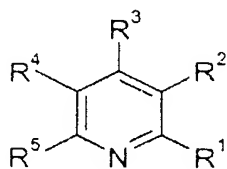
reacting (i) said acid liberated during said synthesis and (ii) an auxiliary base to form a salt of the auxiliary base; said salt being liquid at temperatures at which the phosphorus compound is not significantly decomposed during the process of separating off the liquid salt;

forming two immiscible liquid phases, a first phase comprising said salt of the auxiliary base and a second phase comprising said phosphorus compound or a solution of said phosphorus compound in a solvent; and

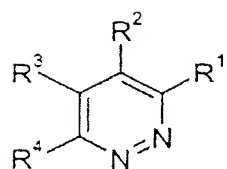
separating said first phase from said second phase;

wherein said phosphorus compound is selected from the group consisting of aminodihalophosphines, diaminohalophosphines, triaminophosphines, phosphorous ester diamides, aminophosphines, diaminophosphines, phosphorous ester amide halides, aminophosphine halides and phosphonous ester halides;

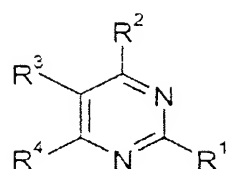
wherein the base used is selected from the group consisting of compounds of the formulae (Ia) to (Ir),



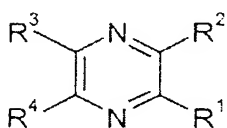
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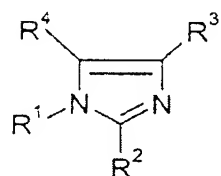
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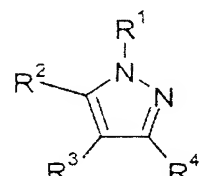
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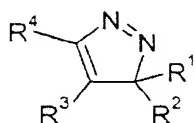
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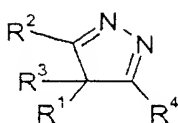
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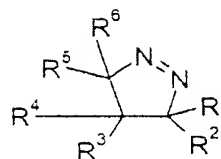
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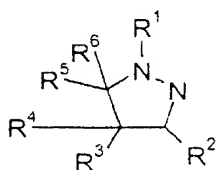
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(h)



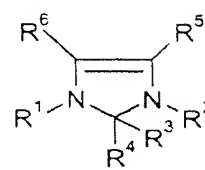
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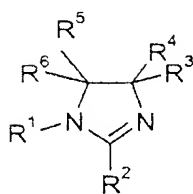
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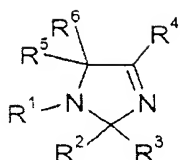
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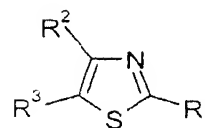
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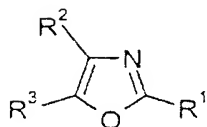
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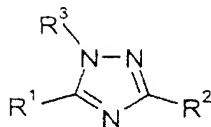
(n)



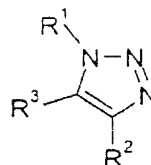
(o)



(p)



(q)



(r)

wherein

R^1 , R^2 , R^3 , R^4 , R^5 and R^6 are each, independently of one another, hydrogen, C_1 - C_{18} -alkyl, C_2 - C_{18} -alkyl which may be interrupted by one or more oxygen and/or sulfur atoms and/or one or more substituted or unsubstituted imino groups, C_6 - C_{12} -aryl, C_5 - C_{12} -cycloalkyl or a five- to six-membered, oxygen, nitrogen- and/or sulfur-containing heterocycle, wherein

each of the abovementioned radicals may be substituted by functional groups, aryl, alkyl, aryloxy, alkyloxy, halogen, heteroatoms and/or heterocycles.

Claim 18 (Previously Presented): The method as claimed in claim 17, wherein the salt of the auxiliary base has a melting point below 160°C.

Claim 19 (Previously Presented): The method as claimed in claim 17, wherein the salt of the auxiliary base has an $E_T(30)$ of more than 35.

Claim 20 (Previously Presented): The method as claimed in claim 17, wherein the base contains at least one nitrogen atom.

Claim 21 (Canceled):

Claim 22 (Previously Presented): The method as claimed in claim 17, wherein the auxiliary base is 1-n-butylimidazole, 1-methylimidazole, 2-methylpyridine or 2-ethylpyridine.

Claim 23 (Previously Presented): The method as claimed in claim 17, wherein the auxiliary base is di-n-butyl-n-pentylamine or 1,5-diazabicyclo[4.3.0]non-5-ene (DBN).

Claim 24 (Previously Presented): The method as claimed in claim 17, wherein the salt of the auxiliary base is soluble to an extent of less than 20% by weight in the desired product or in the solution of the desired product in a suitable solvent.

Claim 25 (Previously Presented): The method as claimed in claim 17, wherein

diphosphorous diester amides ($[N](R'O)P-O-Z-O-P[N'](OR'')$),

diphosphorous ester diamides ($[N][N']P-O-Z-O-P[N'']N'''$),

bistriaminophosphines ($[N][N']P-[N'']-Z-[N''']-P[N''''][N''''']$),

or systems of the formula

$[N](R'O)P-O-Z-O-P(OR'')(OR''')$,

$[N][N']P-O-Z-O-P(OR'')(OR''')$ or

$[N][N']P-O-Z-O-P[N''](OR''')$

or systems which are both nitrogen- and carbon-substituted on each phosphorus and

have the formula

$[N](R')P-O-Z-O-P[N'](R''')$ or

$[N](R')P-[N'']-Z-[N''']-P[N'](R''')$

or systems of the formula

$[N](R'O)P-O-Z-O-P[N'](R''')$

are prepared,

wherein R, R', R'' and R''' can be any organic radicals which may be identical or different, [N], [N'], [N''], [N'''], [N'''''] and [N'''''] are unsubstituted, monosubstituted or disubstituted amino groups which may be identical or different and Z can be any divalent bridge.

Claim 26 (Previously Presented): The method for preparing phosphorus compounds as set forth in claim 17, wherein the preparation is carried out continuously at from 30°C to 190°C and a residence time of from 1 second to 1 hour.

Claims 27-29 (Canceled):

Claim 30 (New): The method as claimed in claim 17, wherein the base is selected from the group consisting of imidazoles of the formulae (Ie).

Claim 31 (New): The method as claimed in claim 17, wherein the base is an imidazole of the formulae (Ie);

wherein, independently of one another,

R^1 is selected from the group consisting of methyl, ethyl, n-propyl, n-butyl, n-pentyl, n-octyl, 2-hydroxyethyl and 2-cyanoethyl, and

R^2 to R^4 are each, independently of one another, hydrogen, methyl or ethyl.